

### **REMARKS**

Claims 1-24 are pending in this application. Claims 1, 3, 5, 7, 11, 15, 19, 21 and 23 are independent. In light of the amendments and remarks made herein, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejections.

By this amendment, Applicant has amended the claims to more appropriately recite the claimed invention. It is respectfully submitted that these amendments are being made without conceding the propriety of the Examiner's rejection, but merely to timely advance prosecution of the present application.

In the outstanding Official Action, the Examiner rejected claims 5, 6, 15-18, 23 and 24 under 35 U.S.C. §101; rejected claims 1, 3, 5, 7, 10, 11, 14, 15 and 18 under 35 U.S.C. §102(e) as being anticipated by Aoyama et al. (USP 6,535,651); and rejected claims 2, 4, 6, 8, 9, 12, 13, 16, 17, 19-24 under 35 U.S.C. §103(a) as being unpatentable over Aoyama et al. Applicant respectfully traverses these rejections.

#### **Claim Rejections - 35 U.S.C. §101**

The Examiner rejected claims 5, 6, 15-18, 23 and 24 under 35 U.S.C. §101 asserting they are directed to non-statutory subject matter. Specifically, the Examiner asserts that a recording medium is not statutory subject matter. By this amendment, Applicant has amended the claims to more appropriately recite the claimed invention. Based on these amendments, Applicant respectfully requests the outstanding rejection be withdrawn.

#### **Claim Rejections - 35 U.S.C. §102**

In support of the Examiner's rejection of claim 1, the Examiner asserts that Aoyama discloses all of the claim elements. Specifically, in the Official Action on pages 3-4, the Examiner asserts that Aoyama et al. discloses as follows:

performing sharpness enhancement processing on an image signal, picking up an image through sampling in a predetermined sampling pattern to acquire an image signal representing the image (fig. 1 elements 10-60, col. 4, lines 30-59, and col. 5, lines 10 to col. 6 lines 39, wherein the sharpness of the image is performed based on the sampling of the image and the interpolation, and

appending sampling information, which concerns the predetermined sampling pattern, to the image signal, which has been acquired, wherein different sharpness enhancement processing is performed on the image signal and in accordance with the sampling information to obtain a processed image signal (fig. 1 elements 10-60, col. 4, lines 30-59, and col. 5, lines 10 to col. 6 lines 39, wherein the sharpness of the image is performed based on the sampling of the image and the interpolation. The interpolation and/or sharpness information is read as appending sampling information, the sharpness instructions are based on the sampling of the image, the interpolation, etc. This is read as different sharpness enhancement processing because the instructions would vary on the sampling and the interpolation as needed.

Applicant respectfully disagrees that Aoyama et al. anticipates all of the elements of claim 1.

Claim 1, as amended, recites picking up an image through sampling in a predetermined sampling pattern to acquire an image signal representing the image, and appending sampling information, which concerns the predetermined sampling pattern, to the image signal, which has been acquired, and performing different sharpness enhancement processing on the image signal in accordance with the sampling information to obtain a processed image signal.

In contrast, the disclosure of Aoyama et al. is directed to an interpolating operation method and apparatus for image signals. An original image signal, which represents an original image and are composed of original image signal components representing a plurality of sampling points, that are arrayed at predetermined intervals and in a lattice-like form, is obtained. **A judgment is made as to whether an interpolation point belongs to an image edge portion, at which the change in the original image signal is sharp, or belongs to a flat portion, at which the change in the original image signal is unsharp.** Interpolating operation processes, one of which is to be employed for the interpolation point, is changed over to each other in accordance with the results of the judgment. Interpolated image signal components corresponding to interpolation points are thereby obtained from the interpolating operation

processes such that a visible image, in which a character pattern and an image edge portion are free from any step-like pattern and are sharp and a flat portion has an appropriate level of sharpness, can be reproduced from the interpolated image signal components. (Abstract) The interpolating operation method for an image signal changes depending on whether an interpolation point is located at an image edge portion or at a flat image density portion.

Claim 1 requires **picking up an image through sampling in a predetermined sampling pattern** to acquire an image signal representing the image, and **appending sampling information, which concerns the predetermined sampling pattern**, to the image signal, which has been acquired, and performing different sharpness enhancement processing on the image signal **in accordance with the sampling information** to obtain a processed image signal.

Thus, the different sharpness enhancement processing is performed in accordance with the sampling information, which **concerns the predetermined sampling pattern**. However, Aoyama et al. discloses performing an interpolating operation method depending on whether the interpolation point is located at an image edge portion or at a flat image density portion, not based on the sampling pattern. It appears from the Examiner's rejection that the Examiner is not affording proper patentable weight to the term "pattern" as recited in the claim.

Applicant respectfully submits that Aoyama et al. fails to teach or suggest all of the claim elements and thus, Applicant submits that claim 1 is not anticipated by, and thus patentable over, the teachings of Aoyama et al. It is respectfully requested that the outstanding rejection be withdrawn.

Applicant respectfully submits that claim 2 is allowable for the reasons set forth above with regard to claim 1 at least based on its dependency on claim 1. It is further respectfully submitted that claims 3 and 5 recite elements similar to those discussed above with regard to claim 1 and thus these claims, together with claims dependent thereon, are allowable for the reasons set forth above with regard to claim 1.

In support of the Examiner's rejection of claim 7, the Examiner asserts that Aoyama et al. teaches all of the claim elements, citing to the rejection of claim 1 and col. 5, lines 9-18. Applicant respectfully disagrees that these teachings of Aoyama et al. are sufficient to anticipate claim 7.

Aoyama et al. discloses in col. 5, lines 9-18 as follows:

In the interpolating operation method for an image signal in accordance with the present invention, the sampling points arrayed at predetermined intervals and in a lattice-like form. For example, the sampling points may be arrayed along horizontal and vertical directions and in a square lattice-like form or a rectangular lattice-like form. Alternatively, the sampling points may be arrayed along oblique directions and in a rhombic lattice-like form. Also, the lattice intervals may be kept the same for the two array directions or may be varied for the two array directions.

In contrast, claim 7 recites an image transforming method, comprising the step of performing transforming processing on a square sampling image signal, which has been obtained from a checkered sampling image signal by performing a predetermined interpolating operation process on the checkered sampling image signal to form signal values corresponding to empty pixel positions in an array of pixels represented by image signal components of the checkered sampling image signal, wherein the transforming processing is a processing for performing an interpolating operation process, which is different from the predetermined interpolating operation process, on the square sampling image signal to form new signal values corresponding to the empty pixel positions, in lieu of the signal values having been formed with the predetermined interpolating operation process, and thereby to obtain a new square sampling image signal.

However, as noted above, Aoyama et al. discloses the sampling points are arrayed at predetermined intervals and in a lattice-like form. For example, the sampling points may be arrayed along horizontal and vertical directions and in a square lattice-like form or a rectangular lattice-like form. Alternatively, the sampling points may be arrayed along oblique directions and in a rhombic lattice-like form. Also, the lattice intervals may be kept the same for the two array directions or may be varied for the two array directions.

Applicant respectfully submits that these teachings are insufficient to teach or suggest performing transforming processing on a square sampling image signal, which has been obtained from a checkered sampling image signal **by performing a predetermined interpolating operation process on the checkered sampling image signal** by performing a predetermined interpolating operation process on the checkered sampling image signal to form signal values corresponding to empty pixel positions in an array of pixels represented by image signal components of the checkered sampling image signal.

Further, Applicant submits that Aoyama et al. fails to teach or suggest transforming processing is a processing for performing an interpolating operation process, which is different from the predetermined interpolating operation process, on the square sampling image signal to form new signal values corresponding to the empty pixel positions, in lieu of the signal values having been formed with the predetermined interpolating operation process, and thereby to obtain a new square sampling image signal.

Applicant respectfully submits that Aoyama et al. fails to teach or suggest all of the claim elements and thus, Applicant submits that claim 7 is not anticipated by, and thus patentable over, the teachings of Aoyama et al. It is respectfully requested that the outstanding rejection be withdrawn.

Applicant respectfully submits that claims 8-10 are allowable for the reasons set forth above with regard to claim 7 at least based on their dependency on claim 7. It is further respectfully submitted that claims 11 and 15 recite elements similar to those discussed above with regard to claim 7 and thus these claims, together with claims dependent thereon, are allowable for the reasons set forth above with regard to claim 7.

### **Claim Rejections - 35 U.S.C. §103**

The Examiner rejected claims 2, 4, 6, 8, 9, 12, 13, 16, 17, 19-24 under 35 U.S.C. §103(a) as being unpatentable over the teachings of Aoyama et al. However, Applicant respectfully

submits that Aoyama et al. is assigned to Fuji Photo Film Co., Ltd. Aoyama et al. only qualifies as prior art under 35 U.S.C. §102(e). Applicant respectfully submits that the present invention was commonly owned or subject to assignment at the time the present invention was made. As such, under the provisions of our 35 U.S.C. §103(c), Aoyama et al. does not qualify as prior art for rejections asserted under 35 U.S.C. §103(a). Thus, it is respectfully submitted that the outstanding rejection is improper and should be withdrawn.

### Conclusion

In view of the above remarks, Applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Catherine M. Voisin Reg. No. 52,327 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

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Respectfully submitted,

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